Amendments to the Specification

Please replace the paragraph at page 1, line 1, with the following paragraph:

This application is a continuation of application Serial No. 09/512,930, filed February 25, 2000, now U.S. Patent No. 6,706,264, which is a divisional of application Serial No. 08/560,943, filed November 20, 1995, now abandoned, which is a continuation of application Serial No. 08/212,629, filed March 14, 1994, now abandoned, all of which are incorporated by reference herein.

Please replace the bridging paragraph at page 7, line 12 to page 8, line 4, with the following paragraph:

IL-12 antagonists can be produced by methods well known to those skilled in the art. For example, monoclonal IL-12 antibodies can be produced by generation of antibody-producing hybridomas in accordance with known methods (see for example, Goding. 1983. Monoclonal antibodies: principles and practice ~~paractice~~. Academic Press Inc., New York; Yokoyama. 1992. "Production of Monoclonal Antibodies" in Current Protocols in Immunology. Unit 2.5. Greene Publishing Assoc. and John Wiley & Sons). Polyclonal sera and antibodies to IL-12 can be produced by inoculation of a mammalian subject with IL-12 or fragments thereof in accordance with known methods. Chizzonite et al., J. Immunol. 148, 1992, p. 3117, describes the identification and isolation of an IL-12 receptor. Fragments of antibodies, receptors or other reactive peptides can be produced from the corresponding antibodies by cleavage of and collection of the desired fragments in accordance with known methods (see for

example, Goding, supra; Andrew et al. 1992. "Fragmentation of Immunoglobulins" in Current Protocols in Immunology. Unit 2.8. Greene Publishing Assoc. and John Wiley & Sons). Chimeric ~~Chimerci~~ antibodies may also be produced in accordance with known methods.

Please replace the bridging paragraph at page 10, line 15 to page 11, line 13, with the following paragraph:

Recombinantly produced IL-12 can be purified from culture medium or cell extracts by conventional purification techniques. Culture medium or cell extracts containing IL-12 may be concentrated using a commercially available protein concentration filter, for example, an Amicon or Millipore Pellicon ultrafiltration unit. Following the concentration step, the concentrate can be applied to a purification matrix such as a gel filtration medium. Alternatively, an anion exchange resin can be employed, for example, a matrix or substrate having pendant diethylaminoethyl (DEAE) groups. The matrices can be acrylamide, agarose, dextran, cellulose or other types commonly employed in protein purification. Alternatively, a cation exchange step can be employed. Suitable cation exchangers include various insoluble matrices comprising sulfopropyl or carboxymethyl groups. The purification of IL-12 from culture supernatant may also include one or more column steps over such affinity resins as lectin-agarose, ~~heparin-toyoperal~~ heparin-TOYOPEARL® or Cibacrom blue 3GA ~~Sepharose~~ SEPHAROSE®; or by hydrophobic interaction chromatography using such resins as phenyl ether, butyl ether, or propyl ether; or by immunoaffinity chromatography. Finally,

one or more reverse-phase high performance liquid chromatography (RP-HPLC) steps employing hydrophobic RP-HPLC media, e.g., silica gel having pendant methyl or other aliphatic groups, can be employed to further purify IL-12 for use in the present methods and compositions. Some or all of the foregoing purification steps, in various combinations, can be employed to provide a substantially homogeneous isolated recombinant protein. Purification of IL-12 subunits or fragments for use in the present invention may differ from the optimal protocol for purification of the heterodimeric protein.

Please replace the paragraph at page 11, line 14 to page 12, line 13 with the following paragraph:

Preferably, when human IL-12 is produced recombinantly as set forth above, it may be purified by the following method. The cells in which the human IL-12 has been made may be removed from the conditioned medium by filtration, and the conditioned medium is loaded onto Q-Sepharose FASTFLOW™ (available from Pharmacia) or an equivalent anion exchange medium, which has been equilibrated in 10-30 mM Tris-HCl, pH 7.8-8.3. The column is then washed extensively with the same buffer followed by a wash with 30-45 mM histidine, pH 5.1-5.8, followed by a wash with the original equilibration buffer. The recombinant human IL-12 is eluted from the column with a buffer containing 20-50 mM Tris-HCl, pH 7.8-8.5, and 0.15 to 0.50 M NaCl. The eluted material is loaded onto CM-Sepharose ~~FastFlow~~ FASTFLOW™ (available from Pharmacia) or equivalent cation exchange medium which has been equilibrated in

20-50 mM MES, pH 5.7-6.4, and washed extensively with the same buffer. The column is washed with a buffer containing 20-40 mM sodium phosphate, pH 6.8-7.5 and 0.2-0.5 M NaCl. The eluted material is concentrated using an ~~Amicon~~ AMICON™ S1Y30 or equivalent spiral cartridge membrane which has been washed and equilibrated in the elution buffer used in the CM-Seplarose ~~FastFlow~~ FASTFLOW™ column. The material is concentrated to approximately 5% of the column volume of the final chromatographic step, which is size exclusion using S200 ~~Sephacryl~~SEPHACRYL™ (available from Pharmacia) or an equivalent size exclusion resin. The size exclusion column is equilibrated and eluted with phosphate buffered saline, pH 7.2-7, and the recombinant human IL-12 peak is collected and filtered for use in the method of the invention. Those of skill in the art of protein purification may use alternative purification methods to obtain recombinantly-produced human IL-12 for use in the method of the invention.

Please replace the bridging paragraph at page 16, line 21 to page 17, line 3, with the following paragraph:

rmIL-12 (0.3μg/mouse, 200μl i.p.) was administered to mice following the transfer of either $30X10^6$ or $10X10^6$ PLP stimulated LNC. IL-12 was administered on days 0, 1 and 2 following cell transfer. Control mice received an equal volume of vehicle alone. To determine if IL-12 is involved in the induction of disease following the transfer of PLP stimulated LNC, mice were treated with 200μg of a sheep polyclonal antibody against murine IL-12 (200μl i.p.) on alternate days for either 6 or 12 days in total following cell

transfer and the mice monitored for signs of disease. Control mice received ~~and~~ an equal amount of sheep IgG. The mice were monitored.